

order to get the required speed of drip. The height of E above the thistle should be about $1\frac{3}{4}$ " to 2". When properly positioned the drop traps the air slug with a characteristic *bof*. Unless the drops fall squarely the water will run directly down the tube into K without pumping air. Occasional adjustments are found to be necessary as the plug swells or becomes foul.

As described, the apparatus will use about a gallon of water a day. The writer siphons the overflow in T night and morning and replaces it in A. Occasionally an additional half-pint is added to make up for evaporation.

The equipment should be run for several hours before placing the plants in the nutrient solution.

The device was set going in September and the specimens remained in the water in which it was collected, with slight additions of tap water to make up for evaporation. At the end of four months the specimen was fresh, and there was no accumulation of bacterial scum. The water was then replaced with Detmer's solution, concentration 6 per 10,000, and now (February) the plant is showing growth.

The writer contemplates setting up a battery of these aerating devices in which water directly from the tap will be used by passing it through a header having small branches and stop cocks and using drig plugs of glass or plastic material. The present "tees" will be replaced with some having much larger diameter so that the change of sectional area will ensure every water slug being broken. The flasks (K) will overflow directly into a drain. Such an outfit should require practically no attention.

STATEN ISLAND INSTITUTE
OF ARTS AND SCIENCES, N. Y.

FIELD TRIPS OF THE CLUB

TRIP OF JULY 5-7, 1940, TO THE PENNSYLVANIA STATE COLLEGE
NATURE CAMP, SEVEN SISTER MOUNTAINS, PA.

Upon arrival at the camp in the midst of a forest preserve, the seven members and guests were cordially greeted by Prof. George R. Green, Director of the Nature Camp, and his staff, Miss Farida A. Wiley, Dr. Oliver P. Medsger and Prof. George J. Free.

After dinner the spacious grounds of camp attracted us. Nests of five species of birds were pointed out; several table mountain pines, *Pinus pungens*, about fifteen feet high, with mature, nearly round, heavy cones persisting and branches crowded with short, bluish leaves, most picturesque trees; also thyme-leaved sandwort, *Arenaria serpyllifolia*; and narrow-leaved vervain, *Verbena angustifolia*.

In the evening Professor Green gave an illustrated lecture on "Forestry." Many of his pictures were taken at camp. Later, the stillness of night was occasionally broken by the hooting of barred owls from the mountain sides.

Saturday morning under the leadership of Professor Green and his staff we followed the Johnson Trail into the forest. Here a chorus of cicadas, the seventeen-year locusts, attracted our attention. They were abundant also about camp and in many places the dead terminals, particularly of the oaks, showed evidence of their egg-laying. Pine and coral-winged cicadas were also identified.

The trees were studied in detail, with particular attention to the bark formation. They were mostly butternut, American linden, tupelo, oaks, the cucumber tree *Magnolia acuminata*, and farther on hemlocks. Many mosses were identified. A red-bellied brown snake was found and examined. A long snake-shed, discovered on the trunk of a large white oak, about seventy feet from the ground, caused all to marvel why a snake should climb to such a place to shed its skin. Upon further examination a smaller shed was found a little higher on the tree. Presently, a long pilot black snake was seen slowly and carefully coming down the tree head first on the upper side of the very slightly sloping trunk, depending entirely upon the roughness of the bark to descend, there being no branches or other irregularities. All gathered around and cameras began to click. When the snake came within reach Professor Green caught her and found she measured four feet six inches long. He opened her mouth to show the double row of upper teeth and the single row below, characteristic of non-poisonous snakes. When released she seemed not at all frightened by this demonstration.

There were few flowering plants here, *Mitchella repens*, *Monotropa uniflora*, and *Circaea alpina* in bloom; plants of golden saxifrage, *Chrysosplenium americanum*; and ferns, maidenhair, and two spleenworts, ebony and narrow-leaved.

In the afternoon Miss Wiley led us along the Alan Seeger Trail, the first part of which was open forest. Here we saw our first pileated woodpecker although we had heard them before and observed many places where they had been excavating for larvae. Tall plants of *Rhododendron maximum*, some in full bloom, were photographed at close range. Farther on, the rhododendron in the swamp was blooming, this year, somewhat sparsely. Far out in the swamp we heard the humming of thousands of bees and saw them going in and out through a small hole high up in a "bee tree." Beside our trail were several large trees, a Juneberry, *Amelanchier canadensis*, with a trunk $9\frac{1}{4}$ inches in diameter at four feet from the ground, and two hemlocks, *Tsuga canadensis*, one $11\frac{1}{2}$ feet in circumference, the other $13\frac{1}{2}$ feet. Beyond in the woods was a twayblade, *Listera Smallii*, about five inches tall in bud. Later, at another location, there were several in bloom.

After supper all drove to the mountain-top to see the sunset and the display of mountain laurel, *Kalmia latifolia*. At 2,400 feet altitude the whole mountain seemed to have burst into bloom, for as far as one could see back among the scattered, low trees were masses of laurel everywhere, acres and acres in its prime. Our attention was called to the beeswax odor of the laurel which was surprisingly pronounced. During our return the whippoorwills were singing and greeted us also as we reached camp.

On Sunday two special trips were planned for our party. First, Dr. Medsger took us to "Beaver Meadows," a swamp area two miles long, formerly dammed by beavers, though none are there now. The trail led among large red spruce, *Picea rubra*; balsam, *Abies balsamea*; mountain ash, *Pyrus americana*; larch, *Larix laricina*; Juneberry, *Amelanchier canadensis*; masses of *Rhododendron maximum*; mountain holly, *Nemopanthus mucronata*; buckthorn, *Rhamnus*; and mountain laurel, *Kalmia latifolia*. One of our objectives here was the Massachusetts fern growing in great abundance in association with the New York fern. Plants of gold thread, *Coptis trifolia*; trailing arbutus, *Epigaea repens*; painted trillium, *Trillium undulatum*; a fungus, *Amanitopsis vaginata*, were seen and in the wetter places round-leaved sundew, *Drosera rotundifolia*; hispid blackberry, *Rubus hispidus*; and in bloom, winterberry, *Ilex verticillata*. Perhaps most attractive of all were two species, Small's twayblade, *Listera Smallii*, several in bloom

showing the delicate texture of the brownish, cleft lip, and on a wooded slope several plants of the rare whorled pogonia, *Pogonia verticillata*, in seed. On the mountainside several chestnut sprouts, *Castanea dentata*, about twenty-five feet high were in full bloom. Near camp Dr. Medsger pointed out two maples that had formed a natural graft about ten feet from the ground, also sweet pinesap, *Monotropa hypopitys*, in bloom with thirty-one plants in a cluster.

After dinner under Miss Wiley's guidance we noted the long-leaved houstonia, *Houstonia longifolia*; *Botrychium lanceolatum*; another pilot black snake in a tree with black-capped chickadees and pine warblers protesting; and in a planting of several species of pines slender ladies tresses, *Spiranthes gracilis*, not yet in bloom.

After supper all drove to a fire-tower lookout, which commanded an extensive view of the Seven Sister Mountain tops. Mountain laurel, some tall and tree-like, was much admired and on the Fire-Warden's grounds large plants of *Viola fimbriatula* bearing many ripe capsules from the petaliferous and cleistogamous flowers attracted attention.

After returning from the mountain, all joined in a short religious service led by Professor Free and Dr. Medsger.

We stayed until the eighth to participate in an early morning bird walk which Professor Green had arranged for the students and for our benefit. With Miss Wiley and Professor Free as leaders we added several species to our list, including a male cardinal that gave us a beautiful performance, making a total for the week-end of forty-nine species and nests of ten. Nests attracting the most attention were those of an indigo bunting containing four eggs, one of which was a cowbird's, a Louisiana water-thrush in the roots of an upturned tree, and a wood thrush about thirty feet up in a hemlock, a surprisingly high situation for the species.

Those visiting the Camp were much impressed by its ideal situation for the study of nature, where college credits can be earned and individual problems pursued under expert guidance. We wish to extend our thanks to Professor Green for his cordial hospitality and for leaving nothing undone that might contribute to the success of our week-end visit; and to our trail leaders for their friendly enthusiasm and expert assistance in pointing out details of that forest environment, so rich botanically as well as in its general fauna.

EDITH DAY CHUBB

TRIP OF AUGUST 25 TO JUNIPER SWAMP AND IDLEWILD

The August 25th field meeting of the Torrey Botanical Club to Juniper Swamp and Idlewild, Queens County, New York, N. Y., for the study and collection of grasses and sedges, occurred on a cool sunny day. The meeting point was Queens Boulevard and Woodhaven Boulevard. Our way was south along Woodhaven Boulevard and then across southwest to Caldwell Avenue where *Panicum latifolium* L. was pointed out in a patch of catbriers, a woodland species in very thrifty condition although not now sheltered by trees. The trees were cut off at least thirty years ago.

Soon we climbed down the steep bank of the New York Connecting Railroad to the tracks along which we walked south. On the left bank we soon passed many large tufts of *Deschampsia flexuosa* (L.) Trin. usually found on rocky ledges.

Toward the top of the dry bank, there was a large area of *Spartina pectinata* Link. probably a holdover from earlier years when this region was a part of the extensive Juniper Swamp. The natural habitat of this grass is along the edge of a slough or near ditches in a salt marsh or on the drier parts of such a marsh.

Before reaching Elliot Avenue just ahead of us, a few culms of a grass, two feet high, was collected alongside of the tracks, that no one in the group recognized at sight. With the help of Gray's Manual, we agreed that our grass was *Sporobolus cryptandrus* (Torr.) A. Gray which proved to be a species new to the western half of Long Island. This species was reported in House "Annotated List" as having been collected at Orient Point, eastern end of Long Island, many years ago.

A little further south we climbed the bank to the west, out of the railroad cut, crossed Elliot Avenue and approached the station for *Calamagrostis epigeios* var. *georgica* (C. Koch.) Ledeb. located partly on a sloping bank, and partly on the level of the swamp and near the railroad cut. This station was discovered by the writer in late fall of 1936 in a condition too much battered by early fall rains for certain identification. The following spring this grass was easily identified and the identification was verified by Mrs. Agnes Chase, Senior Agrostologist of the Smithsonian Institution. This species had been known for a number of years from a station in Massachusetts, Barnstable County; and, more recently from a smaller area in eastern Pennsylvania, northwest of Philadelphia. The

grass in Juniper Swamp was a variety new to the state of New York. This variety is smaller in every way than the species *Calamagrostis epigeios* (L.) Roth. a grass native in some of the European countries along the Mediterranean Sea. This latter grass has been introduced into this country through its use as packing between slabs of marble from the quarries of Carrara, Italy, and may be seen in a marble yard on the west side of Vernon Avenue, a mile and a half north of Queensboro bridge along the East River. The Juniper Swamp Station for the variety is located in an area destined to become a city park and already (1937) filling operations had approached within a hundred yards of this patch of grass, new to the state. In time our newly discovered grass would be covered with tons of plaster, broken bricks and other refuse. To avoid extinction of this grass, quick action had to be taken. Late in the fall (1937) sixty small sods were dug from the area covered by this grass and these were transplanted in small patches along the sloping sides of the railroad cut, one hundred feet away. All these sods lived and thrived amazingly. Three years later, the transplanted sods occupy several times the area they did when first set out. The sloping sides of a railroad cut are seldom disturbed in such a way as to destroy a grass covering. In such a location, our new grass will probably thrive as long as the railroad exists.

Among the grasses seen along the railroad cut were *Agropyron repens* (L.) Beauv., *Arrhenatherum elatius* (L.) Mert. and Koch., *Danthonia spicata* (L.) Beauv., *Eragrostis spectabilis* (Pursh) Steud., and *Leersia oryzoides* (L.) Swartz, especially interesting because of its cleistogamic flowers. Our way now led along the track, south to the next overhead bridge where we climbed the bank out of the railroad cut and proceeded along the road to the trolley line near the cemetery on Metropolitan Avenue. The trolley took us about a mile to Woodhaven Boulevard where we boarded a Howard Beach bus and at Liberty Avenue changed to the Rockaway Boulevard bus line. This bus took us through Ozone Park to Baisley Park where we changed to the bus from Jamaica and rode a short distance to 157th Street. This street is the road that crosses Idlewild golf course and on to Idlewild Point. A few blocks down this road brought us to an open grassy area on the left partly covered by bushes and close to the golf links. Here we saw *Corynephorus canescens* (L.) Beauv., an annual grass new to most

of the party, introduced from Europe and known elsewhere in the United States from the vicinity of Philadelphia and Martha's Vineyard, Mass. Eugene P. Bicknell first collected this grass, not previously known for the United States, on Long Island near Hempstead reservoir, June, 1903; and he published an account of this species in *Rhodora*, 1914, p. 81.

After lunch, eaten close by a golf club green, we walked toward Idlewild Point. On the way we passed clumps of various grasses: *Digitaria filiformis* (L.) Koel., *Paspalum pubescens* Muhl., *Sorghastrum nutans* (L.) Nash, *Distichlis spicata* (L.) Greene (a dioecious species), *Spartina patens* (Ait.) Muhl., *Spartina patens* var. *caespitosa* (A. A. Eaton) Hitchc., *Spartina alterniflora* Lois., *Phragmites communis* Trin., *Tripsacum dactyloides* (L.) L., *Echinochloa muricata* (Michx.) Fernald, *Andropogon littoralis* Nash., *Ammophila breviligulata* Fernald, and many others of a less exciting character.

Idlewild Point is a wide stretch of gravelly sand that extends half a mile out into Jamaica Bay. Years ago it was a small popular resort with hotel, cottages and bathing facilities, but is now deserted because of the polluted condition of the bay.

In this area the first interesting grass was *Triplasis purpurea* (Walt.) Chapm. easily overlooked but interesting because of the cleistogamic flowers found in the leaf sheaths at the base of the culms. Further on we saw *Panicum oricola* Hitchc. and Chase, *P. dichotomiflorum* Michx., *P. virgatum* L., *P. clandestinum* L., *P. sphaerocarpon* Ell., *Agrostis hiemalis* (Walt.) B. S. P., on the higher parts of the sandy area, and *Spartina* species along the edge of the water.

At the end of the point close to the water there is a station for another European grass, *Elymus arenarius* L., and the only known station for this species in North America. This species differs from *E. mollis* Trin., a dune grass distributed along the eastern coast of North America, Massachusetts to Greenland, in having the culm smooth below the spike and glabrous glumes (verified by Mrs. Chase). Close by were a few culms of *Elymus virginicus* var. *halophilus* (Bickn.) Wiegand.

It was good to rest a while by the waters of the bay and watch the antics of the shorebirds feeding nearby. During this period grasses from other nearby regions were displayed.

From the Palisades, N. J.—*Brachyelytrum erectum* (Schreb.) Beauv., *Panicum polyanthes* Schult., *P. boscii* Poir., *Elymus canadensis* L., *Aristida longespica* Poir., *Leersia virginica* Willd., and *Erianthus alopecuroides* (L.) Ell. Of this last species, Witmer Stone says in his "Plants of Southern New Jersey": "This species is certainly very rare in the State." No stations for it being known to him at the time he wrote his book.

From north shore of Long Island at Plandome—*Panicum amarum* Ell.

From near the propagating houses, New York Botanical Garden *Paspalum longipilum* Nash. and *Arthraxon hispidus* var. *cryptatherus* (Hack.) Honda., an annual, introduced from the Orient and more common from Pennsylvania south to Florida, not yet listed as occurring in New York State.

After our short rest we started back along the road we came and proceeded to a point just south of the golf course and then (the tide being at ebb) we turned right, across the marsh to follow paths in use every day by neighborhood workers as short cuts. Along a shallow ditch we stopped to look over specimens of *Hierochloë odorata* (L.) Beauv., Holy grass, Vanilla grass, Sweet grass. The Indians use this grass, known as Seneca grass, to make fragrant baskets. This species blooms early, April to May, and at this time (late August) is dry and brown. Just beyond there was a stand of *Spartina cynosuroides* (L.) Roth., the tallest species of this genus found in this region.

Still further along these paths through the marsh we saw *Cinna arundinacea* L., *Calamagrostis canadensis* (Michx.) Beauv., *C. cinoides* (Muhl.) Barton, *Echinochloa walteri* (Pursh) Heller, *Panicum barbulatum* Michx., *P. dichotomum* L., *P. verrucosum* Muhl. and *Glyceria striata* (Lam.) Hitchc.

Agricultural and common weedy grasses to the number of thirty-five species not listed by name in this report were seen and commented upon during the trip. In all over eighty different species of grass were seen and pointed out to members of this field party during the day.

The names of species used in this report are those found in Hitchcock's "Manual of the Grasses of the United States."

An excellent review of studies made on cleistogamic flowers by Professor Uphof of Rollins College, appears in *The Botanical Review* for January, 1938.

Eleven members including the guides were present on this field trip which ended at the bus on Rockaway Boulevard about 7:30 P.M.

A. T. BEALS

CYPERACEAE AND JUNCACEAE COLLECTED ON THE TORREY TRIP,
AUGUST 25, 1940

A. Alluvial ditch at Middle Village, L. I., N. Y.

Cyperus strigosus L. Abundant.

Eleocharis obtusa (Willd.) Schultes.

Eleocharis olivacea Torr. Growing in ditch with *Heteranthera reniformis* R. and P.

Scirpus americanus Pers. Abundant.

Scirpus cyperinus (L.) Kunth.

Carex lurida Wahlenb.

B. Salt marshes near Idlewild, L. I., N. Y.

Cyperus Nuttallii Eddy. Abundant all over salt flats.

Cyperus ovularis (Michx.) Torr.

Cyperus cylindricus (Ell.) Britton. The above two species abundant in dry regions.

Cyperus speciosus Vahl. Edge of marsh.

Cyperus strigosus L. Edge of marsh.

Eleocharis capitata (L.) R. Br.

Scirpus robustus Pursh. Along a creek with *Spartina glabra*.

Scleria triglomerata Michx. An extensive colony along the edge of marsh with *Blephariglottis*.

Stenophyllus capillaris (L.) Britton. On dry sterile edges of the marsh.

Carex scoparia Schkuhr. Remains.

Juncus acuminatus Michx. Abundant.

C. Ballasted sand flats.

Carex silicea Olney. Nine large colonies were seen.

Juncus greenei Oakes and Tuckerm. Three small colonies.

WM. H. WIEGMANN

THE NON-GLUMACEOUS PLANTS

The primary objective of the trip was a study of the chaffy or glumaceous series of herbs, such as Poaceae and Cyperaceae. Other plants, from the royal-blooming cohorts and red-fruited shrubs down to the tiny mealy flowers of pigweeds were merely an incidental background to this. Thus, in this section of the trip's account only secondary importance is to be given.

The trip really consisted of two trips, one to the Juniper Swamp with its weed-association (indeed, *Chamaedaphne calyculata* used to grow here several years ago, but those days are now gone) and the other to the far removed Idlewild with its orchids.

The broader leaved Blue Curls and *Crotolaria sagittalis* grew in dry soil in the first locality. Our most interesting find was in a ditch near the side of a railroad. Here, in a habitat of *Alisma subcordatum*, *Ranunculus sceleratus* and *Triadenum virginicum* (relic of the *Chamaedaphne* days) flourished *Heteranthera reniformis*, *Mud-Plantain*, with flowers yet infolded within the spathe. Taylor in his "Flora of the Vicinity of New York," gives its local New York distribution: "In the Hudson from Dutchess Co. northward." The Local Herb. in the New York Botanical Garden has no representative from New York State; the Britton Herb. has sheets from Ulster and Greene counties. Some weeds of the roadside observed en route to Idlewild were: *Reynoutria japonica* Houtt. (*Polygonum cuspidatum*), *Padus virginiana* (filled to the gills with cherries), *Galinsoga aristulata* Bicknell ex descr., *Phytolacca* (also berried), *Potentilla recta*, *Saponaria*, *Scleranthus*, *Leptilon*, *Convolvulus sepium*, *C. arvensis*, *Commelina communis*, *Persicaria pennsylvanica*, *Medicago lupulina*, *M. sativa*, the great fragrant *Melilotus alba*, the loveliest blue of *Cichorium*, and hosts of other weeds. A little removed from the road we spied a colony of *Vernonia*, deep-purple flowered, and an enmassed yellow of several species of goldenrods, entwined with *Amphicarpa bracteata* (L.) Fernald and flowering *Apios americana* Medic.

In the northwest corner of the Idlewild Beach Golf Club, near 146th and Idlewild Road, we landed in one of the most remarkable stations of our trip. Here, heralded by *Vaccinium corymbosum*—or shall we state this luscious berried one as *Vaccinium angustifolium* Ait. \times *V. arkansanum* Ashe \times *V. australe* Small?

to express its true nature, as W. H. Camp does in "The American Midland Naturalist," Vol. 23, p. 177, 1940—by the High Bush, with *Lycopodium inundatum*, *Xyris flexuosa* and Hairy-cap Moss, grew plentifully, *Drosera intermedia*! Roundabout were *Rhexia virginica* and *Gratiola aurea* and further away from this island of remarkable associations for our city (as she is now) were many just plain lovely blooms, such as *Desmodium canadense*, *D. ciliare*, *Ludwigia alternifolia*, Bugle-weed, Joe Pye Weed, *Euthamia graminifolia*, *E. tenuifolia*, two Sensitive Peas, *Chamaecrista nictitans* and the showy *C. fasciculata* and *Agalinis purpurea* near an area of long-peduncled *Strophostyles umbellata*. The Button-weed was a new plant to some of the group who had not seen *Diodia teres* before. *Teucrium canadense* and *Sanguisorba canadensis* were present in some abundance. A *Cuscuta pentagona* Engelman (*C. arvensis*), with its inflexed corolla tips and pale stem, had the scales within its corolla tube greatly reduced, almost lacking, and not at all typically "prominently fringed." On the lawns leading to the golf course grew the Cat's-ear, *Hypochaeris radicata*.

The walk to the sandy point was drab in comparison. White-flowered *Datura stramonium*, *Cycloloma atriplicifolium*, *Strophostyles helvola*, were on the road, and at the edge of the marsh *Iva*, *Baccharis*, *Polygonum exsertum*, *Dondia*, *Salicornia*, *Atriplex hastata*. *Tissa marina* offered an observation worthy of note; its petals are bicolored, lavender at the periphery and white near the center or eye of the bloom. At a distance of several feet, especially in the strong sunlight, these flowers appear white, whereas at close inspection their dainty lavender is the conspicuous hue. In the sand dunes near the bay an herb was taken for *Polygonum*, but the dry-sand habitat and the old flower stalks with their unique articulations made the writer suspect it to be *Polygonella articulata*, if so, a good station for the city.

The last high light of the trip, the most beautiful, was met when we penetrated the marshes deeply, leaping over drainage ditches and dodging through *Rhus vernix* and passing *Helonium autumnale*, the yellow-centered Sneezeweed that was profuse in this locality with *Helianthus angustifolius* as a partner. The *Helonium* species is not a common plant within the confines of the city. Other high lights of this marsh were the colorful hues of *Hibiscus moscheutos* and the fruits of *Rhus glabra*. Further on

we discovered an area of the Yellow-fringed Orchid, *Blephariglottis ciliaris*, legions of them. And they were amidst the whites of *Eupatorium verbenacfolium*, Clethra, *Doellingeria umbellata*. A land form of *Sium suave* Walt., simulated *Oxypholis rigidior* (L.) Raf. that was roundabout. Dwarf *Hypericum canadense* with about fifteen stamens, not the five to ten of description, was a little problem. *Helianthus angustifolius* was common, as *H. giganteus* had been nearer the road previously. *Lacinaria spicata*, in legions, purple spiked, was the showiest flower of the day. We had seen it earlier in the trip growing with *Lacinaria scariosa* and an intermediate hybrid, but not rampant as here. The golden pyramids of *Solidago odora* were a fitting complement to the orchid; and at a distance was a pink haze of *Sabbatia campanulata*; and the capsules of *Iris prismatica* were at our feet.

Our *Sabbatia* somewhat approached the characters of *Sabbatia campanulata* var. *amoena* (Raf.) comb. nov.* (*Chironia amoena* Raf.; *Sabbatia amoena* G. Don.; *Chironia stellaris* Muhl.; *Sabbatia stellaris* Pursh). The manual characters differentiating *Sabbatia campanulata* from its variety *amoena* are worthless, as pointed out by Bicknell whose opinion was endorsed by Fernald (Rhodora, Vol. 18), who offered a new set of key-differences according to which our Marsh Pink agrees with *campanulata* in its subclasping leaves and no discoloration upon drying, but disagree in the fact that it was growing in a *Spartina cynosuroides* salt-marsh (not in "sandy pondshores or sphagnum bogs"). JOS. MONACHINO

AGRICULTURAL AND WEEDY GRASSES POINTED OUT AND DISCUSSED
ON THE AUGUST 25, 1940, TORREY BOTANICAL CLUB
FIELD MEETING

- Bromus inermis* Leyss. Smooth Brome.
Bromus secalinus L. Chess.
Bromus commutatus Schrad. Hairy Chess.
Bromus tectorum L. Downy Chess.
Festuca elatior L. Meadow Fescue.
Festuca rubra L. Red Fescue.
Festuca ovina L. Sheep Fescue.
Poa annua L. Annual Bluegrass.
Poa compressa L. Canada Bluegrass.

* *Sabbatia campanulata* var. *amoena* (Raf.) Monachino, comb. nov.; *Chironia amoena* Raf. Med. Rep. 5: 359, 1808.

- Poa pratensis* L. Kentucky Bluegrass.
Eragrostis pectinacea (Michx.) Nees. A low weed in waste places.
Eragrostis cilianensis (All.) Link. Stinkgrass.
Dactylis glomerata L. Orchard Grass.
Triodia flava (L.) Smyth. Purpletop.
Lolium perenne L. Perennial Ryegrass.
Lolium multiflorum Lam. Italian Ryegrass.
Avena sativa L. Oat.
Agrostis alba L. Redtop.
Agrostis perennans (Walt.) Tuckerm. Autumn Bent.
Phleum pratense L. Timothy.
Muhlenbergia mexicana (L.) Trin. Wirestem Muhly.
Muhlenbergia Schreberi Gmel. Nimblewill.
Eleusine indica (L.) Gaertn. Goosegrass.
Anthoxanthum odoratum L. Sweet Vernalgrass.
Digitaria sanguinalis (L.) Scop. Crab Grass.
Digitaria ischaemum (Schreb.) Muhl. Smooth Crabgrass.
Panicum microcarpon Muhl.
Panicum capillare L. Witchgrass.
Echinochloa crusgalli (L.) Beauv. Barnyard Grass.
Echinochloa crusgalli var. *mitis* (Pursh) Peterm.
Setaria lutescens (Weigel) F. T. Hubb. Yellow Bristlegrass.
Setaria verticillata (L.) Beauv. Bur Bristlegrass
Setaria viridis (L.) Beauv. Green Bristlegrass.
Cenchrus pauciflorus Benth. Field Sandbur.
Cenchrus tribuloides L. Dune Sandbur.
Andropogon scoparius Michx. Prairie Beardgrass.
Andropogon virginicus L. Broomsedge.

TRIP OF NOVEMBER 3, 1940, TO ANTHONY'S NOSE, N. Y.

Eight members and guests of the Club climbed Anthony's Nose on a day which alternated bright sunshine with clouds, strong gusts of wind and light showers. Although fires during recent years had swept the west face of the mountain, a respectable list of lichens was found. On the rocks of the higher levels were three of the rock tripes: *Gyrophora Muhlenbergii*, *Umbilicaria pennsylvanica*, and *U. pustulata*. Many specimens of the latter were quite red on the upper surface. Is this a result of the forest fires or is it a normal color variation in this species? Also growing on the granitic rocks

were: *Rinodina orcina*, *Acarospora fuscata*, *Lecanora rubina*, *L. cinerea*, *Rhizocarpon petraeum* var. *conferoides*, *Parmelia conspersa*, *Amphiloma lanuginosum*, and *Biatorella clavus*. On the soil at the grassy edges of bare places near the top were several *Cladonias*: *C. cristatella* in ffs. *abbreviata*, *vestita* and *ramosa*, *C. chlorophaea* f. *simplex*, *C. bacillaris* ffs. *clavata* and *peritheta*, *C. pleurota*, *C. papillaria* f. *molariformis*, *C. apodocarpa*, *C. caespiticia*, *C. coniocraea* f. *ceratodes* and *C. squamosa*. *Urceolaria scuposus* var. *parasitica* was found on the *Cladonia* squamules in two places. A little *Peltigera sorediata* and some *Baeomyces roseus* were found, but the party was unsuccessful in searching for members of the Cladinae or Unciales groups of the genus *Cladonia*. Perhaps the fires had completely exterminated these. An old dry log yielded *Parmeliopsis aleurites* and an undetermined crustose lichen.

After lunching in a sheltered cove near the top of the mountain, the party continued northward along the Appalachian trail. *Peltigera sorediata* was fruiting on the clay roadbank near the moss *Buxbaumia aphylla* which was fruiting and in prime condition. Rock surfaces down which moisture was trickling yielded: *Dermatocarpon aquaticum*, *Lecidea albocaerulescens*, *Peltigera praetexta*, *Cladonia pityrea* and a species of *Collema*. The clay of the road was covered by *Dicranella heteromalla*, frequently interspersed with *Pogonatum brevicaulis*. Along the edges *Cladonia mitrula* ffs. *imbricatula* and *pallida*, *C. verticillata* f. *evoluta*, *C. chlorophaea* ffs. *simplex* and *carpophora*, *C. nemoxya* f. *phyllocephala*, *C. furcata*, and the liverworts *Ptilidium* and *Scapania* were picked up. At the base of oak trees *Physcia endochrysea* was common. *Cladonia delicata* and *C. borbonica* f. *cylindrica* were found on stumps. A surprise was a thallus of *Stercocaulon paschale* growing on a boulder at a low altitude, after it had been unsuccessfully sought on the rocks at the top of the mountain. Witch hazel was in full bloom; and a few tardy asters and a single bellflower blossom were the only angiosperms still flowering.

J. W. THOMSON, JR.

TRIP OF JANUARY 11, 1941, TO NEW YORK BOTANICAL GARDEN

Through the courtesy of Mr. Robert Hagelstein, Honorary Curator of Myxomycetes, and Mr. Joseph F. Burke, Honorary Curator of Diatomaceae, the Club visited the room that had been

set aside for the study of these groups in the newly rearranged cryptogamic section of the Museum Building at the New York Botanical Garden. We were particularly honored in that this date was selected for the formal opening of the room and the Chairman of the Field Committee was asked to preside. Dr. W. J. Robbins, Director of the Garden, spoke briefly emphasizing the important contributions that amateurs can make to the collection and study of plants. Dr. Fred Seaver, Curator of Cryptogams, drew attention to the advantage to the Garden in having non-professionals available who are specialists of such eminence that they can assume the supervision of a group of plants. Mr. Hagelstein mentioned the progressive attitude of the Garden in acquiring important collections when they became available. He stressed the need of continuously collecting and replacing myxomycete material. Mr. Burke paid tribute to Mr. Hagelstein's work with these groups of plants. A few moments later Mr. Burke was the speaker on the Garden's regular Saturday afternoon lecture series. He gave a fine talk, beautifully illustrated, on the habits and distinguishing characteristics of the Diatomaceae.

The dedicatory ceremony was held in the Members Room. About ninety people were present representing the Garden staff, the New York Microscopical Society, the Torrey Club, and other friends.

JOHN A. SMALL

PROCEEDINGS OF THE CLUB

MINUTES OF THE MEETING ON JANUARY 15, 1941

The meeting was called to order at 3:30 P.M. by the President, Dr. J. S. Karling, at the New York Botanical Garden. Twenty-four members and friends were present. The minutes of the meeting on January 7 were read and approved with correction.

The death of Mr. Emil F. Heinold, 142-15 249th St., Rosedale, L. I., N. Y., in February, 1940, was reported to the Club.

The Recording Secretary was instructed to cast a unanimous ballot for the election of the following nominees to annual membership: Miss Jean C. Van Auken, 726 E. 27th St., Paterson, N. J.; Mrs. B. Tappen Fairchild, Cold Spring Harbor, L. I., N. Y.; Dr. Julian B. Acuna y Gale, Estacion Exp. Agronomica, Stgo. de las Vegas, Habana, Cuba; Mr. Frank F. Gander, Natural